

REMARKS

Responsive to the outstanding Office Action, applicant has carefully studied the Examiner's rejections. In the response, claims 1 and 16 have been amended. Paragraph 12 of the specification has been amended to explicitly contain material which was previously incorporated by reference. The material added to the specification was contained in column 5, lines 1-43 of US Patent 6,521,295, which was incorporated by reference in its entirety in the initial patent application. Since this material is now being included in the claims, this material previously incorporated by reference is now being explicitly incorporated in the specification.

Favorable reconsideration of the application in light of the amendments and arguments is respectfully requested.

The claims pending in the application are claims 1-20 and 27 and 28.

REJECTIONS UNDER 35 USC §103

In the Office Action, the Examiner again rejects claims 1-14, 16-20 and 29 under 35 USC §103, as being unpatentable over US 3,892,888 to Halaby et al in view of Robinson (US 2002/0135099) or vice versa. Claims 27 and 28 are rejected under 35 USC §103, as being unpatentable over US 3,892,888 to Halaby et al in view of Robinson (US 2002/0135099) or vice versa and further in view of Higby. The same references have been applied however new rationale was presented by the Examiner.

The invention as claimed in claim 1 defines a method for depositing an iron oxide coating on a glass article by atmospheric pressure chemical vapor deposition in an on-line float glass process. The method comprises providing a heated glass substrate having a surface on which the coating is to be deposited. Ferrocene and an oxidant are premixed to form a uniform gaseous precursor mixture. The precursor mixture is directed toward and along the surface to be coated and reacted at or near the surface of the glass substrate to form an iron oxide coating. The iron oxide coating formed thereby is primarily in the form of Fe_2O_3 .

The Halaby reference cited by the Examiner is addressed to a method of producing a magnetic recording or storage device. Halaby teaches the deposition of an iron coating, or an α -ferric oxide film on a substrate, which may be glass, and converting the film to a magnetite film or a γ -ferric oxide film through extended exposure to a reducing atmosphere at high temperature. The film is produced through a chemical vapor deposition process which does not need to be sealed off from the outside atmosphere (thus can apparently be at atmospheric pressure).

The Robinson reference discloses a method and system for fabricating articles made from thermoset resins using an ionic mold release agent. Robinson teaches that float glass having a tin oxide enriched surface can be provided with an ionic release agent externally to the tin oxide surface (paragraph 9). Paragraph 35 notes that a thin metal coating can be applied to the "air side" of a float glass for formation of the mold through, for example, CVD.

It is respectfully submitted that the teaching of Halaby would not lead one skilled in the art to the present invention as defined in amended claim 1. There is nothing in the art to suggest premixture of the reactants to form a uniform gaseous precursor mixture and the subsequent delivery of this mixture to the float glass. Thus the invention as claimed in claim 1 distinguishes over any reasonable combination of the applied references, neither of which disclose this feature.

Again, applicants further submit that Halaby is addressed to the production of a magnetic recording media. Robinson is addressed to the production of a mold with a metal oxide surface compatible with ionic release agents. The subject matter of these two references greatly differ, being in two different classifications, and addressing totally different subject matters. It is respectfully submitted that outside of the present disclosure, one skilled in the art would not be motivated to combine the teachings of these two very dissimilar references to propose a combination used in the production of architectural glazings.

Further, as noted previously, applicants submit that the teachings of Halaby are not at all consistent with an on-line float glass process. An on-line float glass process is beneficial in that it proceeds as a continuous process (as opposed to a batch process) at a considerable rate of speed. One of the limiting factors in depositions done in an on-

line float glass process is the deposition rate of the reaction. While low deposition rates are acceptable in batch process, they are totally unsuitable for the on-line float glass process. Halaby suggests that the process for producing its desired final products can occur in a period of from 15 minutes to 10 hours (column 3, lines 26-29.) This number is quite reasonable for a batch process, but would be completely incompatible with an on-line process. Thus, the teachings of Halaby are compatible with batch processes, but are incompatible with the on-line float glass process as defined and claimed in claim 1. This also yields further evidence of the incompatibility of combining the Halaby reference with the Robinson reference. The float glass process of Robinson would be incompatible with the batch process of Halaby. Therefore, it is submitted that claim 1 further defines over the applied art of record.

Claim 16 is similar to claim 1, in that it defines a method of utilizing ferrocene in an atmospheric pressure chemical vapor deposition process which occurs in an on-line float glass process to form an iron oxide layer on a substrate. The ferrocene and an oxidant are premixed and delivered to the substrate for use in the chemical vapor deposition process, and the iron oxide layer formed is primarily Fe_2O_3 . An additional coating is applied between the iron oxide coating and the substrate.

Claim 16 distinguishes over the applied art of record for the reasons stated above with regard to claim 1. As with claim 1, there is nothing to suggest that the reactants are premixed and the gaseous mixture is subsequently delivered to the glass for reacting.

Further, as with claim 1, claim 16 has been amended to indicate that the process occurs in an on-line process. While Robinson does show a float glass process, such a process would be incompatible with Halaby, as noted above.

On the basis of the above, it is respectfully submitted that claims 1 and 16 are fully distinguishable over the art of record.

Summary

Claims 2-15, 17-20 and 27-29, which depend, directly or indirectly from independent claims 1 or 16, are believed to be allowable based, at least, upon this

dependence from what are believed to be allowable base claims. Therefore, all of the claims are believed to be allowable over the applied art of record.

In view of the above, it is submitted that all of the claims are in condition for allowance, and action towards that end is respectfully requested. Should the Examiner wish to modify the application in any way, applicant's attorney suggests a telephone interview in order to expedite the prosecution of the application.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Mark A. Hixon', with a stylized, cursive script.

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